Epi Update for Friday, February 22, 2019
Center for Acute Disease Epidemiology (CADE)
Iowa Department of Public Health (IDPH)

Items for this week's Epi Update include:

- **Use of antivirals for influenza**
- **Interim estimates of 2018-19 seasonal influenza vaccine effectiveness**
- **In the news: Can exercise prevent depression? Here's what the science says**
- **In the news: Why are Americans in so much pain?**
- **In the news: What's healthy at the grocery store? Shoppers are often confused, survey finds**
- **Infographic: Protect babies from whooping cough**
- **Meeting announcements and training opportunities**

Use of antivirals for influenza

There are several antiviral treatment and prophylaxis options available to help manage influenza. These treatments are most effective in healthy people when given within 48 hours of symptom onset, and can reduce uncomplicated illness by up to one day. In young children, they may reduce illness by 3 ½ half days if given within 24 hours of symptom onset. In pregnant women, they have been shown to reduce respiratory failure and death when started within three days. Treatment with antivirals can also reduce secondary pneumonia in adults by 50 percent, and also reduce the risk of death.

Groups at higher risk of complications include: hospitalized patients with confirmed or suspect influenza, patients with severe illness, those under 2 or over 65 years, those with chronic diseases, pregnant women, children on aspirin, morbidly obese, long term care residents and American Indian/Alaskan Native populations.

Antivirals can also be used for post-exposure prophylaxis and should be given within 48 hours of the last exposure and for 7 days following the last known exposure. Antivirals can be considered for preventing flu in persons who are at high risk of complications who cannot receive the flu vaccine or in the first two weeks after receiving the vaccine or as prevention for persons with severe immune deficiencies who might not respond to flu vaccination. Antivirals can also be used to help control outbreaks among high risk persons in an institutional setting. Based on guidance from the CDC and ISDA, the target population for antiviral prophylaxis might vary according to the layout of an institution and the potential for exposures among the institutionalized population.

Neuraminidase inhibitors that can be used for treatment or prophylaxis include Zanamivir and Oseltamivir. Peramivir is an additional treatment option. And this year there is a new medication, Baloxavir, available as a treatment option. See the link below for dosing information.

For more information visit: www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm.

Interim estimates of 2018-19 seasonal influenza vaccine effectiveness

The interim vaccine effectiveness (VE) estimates for the 2018-19 season influenza vaccine were released in the February 15 edition of the Morbidity and Mortality Weekly Report. These

estimates indicate the adjusted overall VE against influenza-associated medically attended acute respiratory illness was 47 percent (95% confidence interval of 34-57%). This estimate is within the range of recent seasons (40% to 60%) when the recommended vaccine viruses have been well-matched to most circulating viruses.

The VE estimates were similar for H1N1 at 46% (95% CI = 30-58%) and H3N2 at 44% (13-64%), but varied widely by age. The highest overall effectiveness was 61 percent among children aged 6 months to 17 years and the lowest effectiveness was 24 percent (-15 to 51%) for those 50 years and over. The VE against H3N2 was higher than in 2017-18, but similar to previous well-matched H3N2 seasons.

The interim U.S. VE estimate of 44 percent against H1N1 is lower than the recently reported interim estimates of 72% effectiveness against H1N1 in Canada during the 2018–2019 season and 78% against H1N1 in Australia during the 2018 Southern Hemisphere influenza season. It is not currently known if this difference is due to variation in the circulating viruses or due to differences in the populations studied.

Estimates for flu-related hospitalizations and deaths prevented by the 2018-19 influenza vaccine will not be available until the season is over, but estimates from other similar seasons indicate millions of flu illnesses and thousands of hospitalizations and deaths will be prevented through vaccination this season.

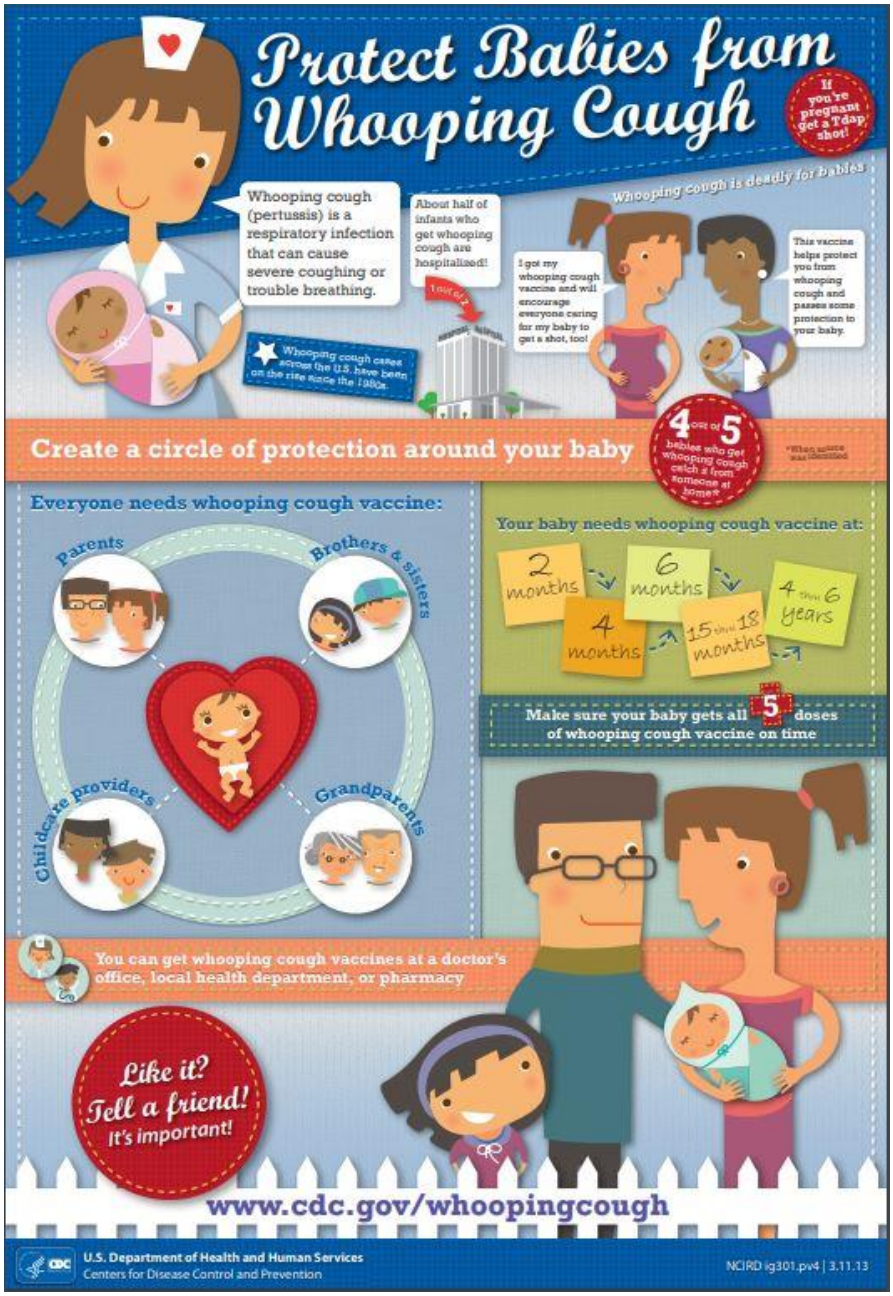
For more information, visit www.cdc.gov/mmwr/volumes/68/wr/mm6806a2.htm.

In the news: Can exercise prevent depression? Here's what the science says
time.com/5511322/exercise-depression-mental-health/

In the news: Why are Americans in so much pain?
news.yahoo.com/americans-much-pain-141918964.html

In the news: What's healthy at the grocery store? Shoppers are often confused, survey finds
www.npr.org/sections/thesalt/2019/01/24/688042266/grocery-shoppers-dont-always-know-what-s-best-for-them-can-better-food-labeling

Infographic: Protect babies from whooping cough



To view in full size, visit www.cdc.gov/vaccines/parents/infographics/protect-babies-from-whooping-cough.pdf.

Meeting announcements and training opportunities
None

Have a healthy and happy week!
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